REMARKS

In the Office Action, the Examiner rejected claims 1-50. However, for the reasons set forth below, Applicants respectfully submit that all of pending claims 1-50 are allowable in their present form. By the present Response, Applicants amend claims 6, 8, 13, 15, 22, 23, 27, 31, 35, 46, 47, 49, and 50 to further clarify the claimed subject matter. These amendments add no new matter and are not of such character that they necessitate an additional search by the Examiner. Upon entry of the amendments, claims 1-50 will remain pending in the present patent application. Applicants respectfully request reconsideration of the above-referenced application in view of the following remarks.

Objections to the Drawings

In the Office Action, the Examiner objected to FIG. 1 for a perceived informality. Particularly, the Examiner noted a slight inconsistency between FIG. 1 and the portion of the specification referring thereto. Applicants respectfully submit that server 22 of FIG. 1 may be properly considered as a part of system 10. *See* Application, pg. 5, lines 6-8; pg. 5, line 29 – pg. 6, line 3. However, in the interest of clarity, Applicants amended the specification as set forth above in order to clarify the relationship of device group 12 and server 22 within scheduling system 10. For these reasons, Applicants respectfully request withdrawal of the Examiner's objections to the drawings.

Objections to the Specification

In the Office Action, the Examiner also objected to the specification for various alleged informalities. Although Applicants do not necessarily agree with the Examiner's objections, Applicants amended the specification as set forth above in the interest of advancing prosecution of the present application. In view of these amendments, Applicants believe the Examiner's objections are moot. Accordingly, Applicants respectfully request withdrawal of the Examiner's objections to the specification.

Rejections Under 35 U.S.C. § 101

In the Office Action, the Examiner rejected claims 1-50 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter. Applicants respectfully traverse this rejection.

Applicants respectfully note that 35 U.S.C. § 101 explicitly states that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor" (emphasis added). Applicants recognize that certain boundaries have been placed on the expanse of eligible subject matter, including the ineligibility of printed matter, naturally occurring articles, and scientific principles. *See* Manual of Patent Examining Procedure § 706.03(a). However, the Examiner has not provided a legally cognizable reason for asserting that the present claims are not eligible subject matter.

In the Office Action, the Examiner contends that method claims 1-50 are unpatentable because they do not require performance of any of the steps by a machine or a computer. Applicants respectfully note that a method claim does not have to be performed by a machine in order to be eligible subject matter. In the Office Action, the Examiner correctly states that the Federal Circuit has provided a safe harbor for computer related inventions that pertain to transformation of data by a machine. However, as may be appreciated by the Examiner, the existence of such a safe harbor *does not* mean that every method claim must transform data with a machine in order to be patentable. Because the present rejection under 35 U.S.C. § 101 is clearly based on a misunderstanding or mischaracterization of law, Applicants respectfully request withdrawal of the rejection. In the alternative, should the Examiner choose to maintain the instant rejection after consulting with his supervisor, Applicants respectfully request that the Examiner more explicitly set forth the reasons for the rejection so that Applicants may have an appropriate opportunity to respond.

Rejections Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-50 under 35 U.S.C. § 102(e) as anticipated by Siegel et al. (U.S. Publication No. 2004/0117153). Applicants respectfully traverse this rejection.

Legal Precedent

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Moreover, the prior art reference also must show the *identical* invention "*in as complete detail as contained in the ... claim*" to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

Secondly, if the Examiner relies on a theory of inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999) (emphasis added). The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. *Id.* In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Examiner, in presenting the inherency argument, bears the evidentiary burden and must adequately satisfy this burden. *See id.*

Omitted Features of Independent Claims 1, 26, 38, 40, 43, and 45

Turning now to the present claims, the Siegel et al. reference fails to disclose each element of independent claim 1. For instance, independent claim 1 recites, "comparing the one or more data points *to at least one associated reliability curve* for a population of similar devices" (emphasis added). Independent claim 1 also recites, "calculating a service interval for the device based at least upon the comparison of the one or more data points and the reliability curve." Because the Siegel et al. reference fails to disclose such elements, the cited reference fails to anticipate independent claim 1.

The Siegel et al. reference is generally directed to an automated self-learning diagnostic system and method for use with networked machines. Page 1, paragraph [0002]; page 2, paragraph [0022]. Particularly, the Siegel et al. system utilizes data relating to both a specific component and a population of components as a training set *to adjust threshold parameters* in the detection and diagnostics algorithms. Page 2, paragraph [0022]. The Siegel et al. process includes launching a product with an initial set of diagnostics thresholds 210. Page 3, paragraph [0034]. Siegel et al. also disclose collecting performance data (step 250) from machines 240 in the field and checking (step 260) service records 270 to make sure machine failures are not going undetected. *Id.* Subsequently, adjustments may be made to the algorithm to improve performance (step 280) and feedback may be provided to engineering and product divisions (step 290). *Id.*

As noted above, independent claim 1 recites, among other things, "comparing the one or more data points to at least one associated reliability curve for a population of similar devices." In the Office Action, the Examiner relied upon step 280 of FIG. 2 and paragraphs [0034] – [0036] of the Siegel et al. reference as disclosing this element. Office Action mailed March 11, 2005, pg. 5. This reliance, however, is unfounded. While the passage of the Siegel et al. reference relied upon by the Examiner may teach the collection of data, the reference in no way suggests comparing data to a *reliability curve*, let alone comparing data to an associated reliability curve for a population of similar devices. Indeed, upon careful analysis of the cited reference, Applicants respectfully note that the Siegel et al. reference fails to disclose, teach, or suggest *any* type of curve. The term "curve" is entirely absent from the cited reference. Although mentioned above, Applicants again emphasize that the prior art reference must show the *identical* invention "*in as complete detail as contained in the ... claim*" to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Because the cited reference fails to teach any kind of curve, it would be incongruous to suggest that the Siegel et al. reference could possibly disclose "comparing the one or more data points *to at least one associated reliability curve*" (emphasis added).

Further, the Siegel et al. reference also fails to disclose "calculating a service interval for the device based at least upon the comparison of the one or more data points and the reliability curve" as recited by independent claim 1. In the Office Action, the Examiner argued that this element is inherently taught by the Siegel et al. reference because a passage of the reference teaches checking machine or device service records for undetected failures. Office Action mailed March 11, 2005, pg. 5; *see also* Siegel et al., pg. 4, paragraph [0035]. This assertion, however, is erroneous for at least two reasons. First, as discussed above, the Siegel et al. reference fails to teach a reliability curve. Due to this deficiency, the cited reference necessarily fails to disclose calculating a service interval based on any comparison involving a reliability curve. Second, even though Siegel et al. teach checking service records for undetected failures, it does not necessarily follow that a service interval is calculated for a device based on comparison of device data to a reliability curve. Applicants respectfully remind the Examiner of his evidentiary burden with respect to a theory of inherency as outlined above. In order to sustain the Examiner's present inherency argument, the Examiner must prove that the missing descriptive matter is *necessarily* present in the cited reference. Applicants fully expect that the Examiner, upon reconsideration, will recognize that checking service records may be performed without calculating a service interval and, consequently, that calculating a service interval does not *necessarily* follow from the mere checking of service records. For these reasons, the Siegel et al. reference also fails to disclose, either explicitly or inherently, "calculating a service interval for the device based at least upon the comparison of the one or more data points and the reliability curve" as recited by independent claim 1.

Because the Siegel et al. reference fails to disclose each and every element, the cited reference simply cannot support a *prima facie* case of anticipation with respect to independent claim 1. As a result, independent claim 1, as well as its dependent claims, is believed allowable over the prior art. Further, independent claims 26, 38, 40, 43, and 45 each contain recitations similar to those of independent claim 1 and are also believed to be allowable over the Siegel et al. reference for the same reasons provided above. Consequently, independent claims 26, 38, 40, 43, and 45, in addition to their respective dependent claims, are believed equally allowable over the art of record.

Omitted Features of Independent Claims 11, 30, 39, 41, 44, and 48

The Siegel et al. reference also fails to disclose each element of independent claim 11. For instance, independent claim 11 recites, "*calculating a service interval* for each data source by at least comparing the one or more data points from the data sources and *at least one associated reliability curve*" (emphasis added). Additionally, independent claim 11 also recites, "selecting an optimal service interval from the plurality of service intervals." The Siegel et al. reference fails to disclose these elements; consequently, the cited reference fails to support a *prima facie* case of anticipation with respect to independent claim 11.

As discussed above with respect to independent claim 1, the Siegel et al. reference fails to disclose either "calculating a service interval" or "at least one associated reliability curve." As a result of these deficiencies alone, the Siegel et al. reference cannot teach "calculating a service interval for each data source by at least comparing the one or more data points from the data sources and at least one associated reliability curve" and, thus, fails to support a *prima facie* case of anticipation of independent claim 11. However, the Siegel et al. reference is further deficient in that it also fails to in any way disclose "selecting an optimal service interval from the plurality of service intervals." In fact, in the Office Action, the Examiner aggregately rejected every independent claim of the present application, providing a rationale for only those elements recited by independent claim 1. Consequently, the Examiner has not pointed to a single passage of the Siegel et al. reference that discloses "selecting an optimal service interval from the plurality of service intervals." As noted immediately above, the Siegel et al. reference fails to teach calculating a single service interval. Consequently, the cited reference cannot be reasonably considered to even teach calculating a plurality of service intervals, let alone teach selecting an optimal service interval from such a plurality.

Based on these deficiencies, Applicants respectfully assert that the Siegel et al. reference fails to anticipate independent claim 11. Accordingly, Applicants request withdrawal of the present rejection and allowance of independent claim 11 and its dependent claims. Applicants also note that each of independent claims 30, 39, 41, 44, and 48 contains recitations similar to those of independent claim 11. The Siegel et al. reference, therefore, also necessarily fails to anticipate these independent claims, as well as their respective dependent claims. As a result, Applicants also respectfully request withdrawal of the present rejection with respect to these claims and allowance of independent claims 30, 39, 41, 44, and 48, and their respective dependent claims. Alternatively, should the Examiner for some reason maintain the present rejection, Applicants respectfully request that the Examiner provide *some* rationale for asserting that the cited reference discloses *each* element of the instant claims in a future, *non-final* Office Action in order to provide Applicants with a reasonable opportunity to respond to the rejection.

Omitted Features of Independent Claims 18, 34, and 42

Applicants also respectfully submit that the Siegel et al. reference similarly fails to disclose each element of independent claim 18. For instance, independent claim 18 recites, "*calculating a service interval* for each device by at least comparing the one or more data points associated with the device and *at least one associated reliability curve*" (emphasis added). Moreover, independent claim 18 also recites, "selecting an optimal service interval for one or more of the devices from the plurality of service intervals." The Siegel et al. reference fails to disclose these elements and, therefore, fails to anticipate independent claim 18.

As noted above with respect to independent claims 1 and 11, the Siegel et al. reference absolutely fails to teach numerous elements of independent claim 18, including "calculating a service interval," an "associated reliability curve," or "selecting an optimal service interval ... from the plurality of service intervals." Additionally, as also discussed above, the Examiner has not even provided a scintilla of support for the rejection with respect to the latter element. Consequently, Applicants respectfully submit that independent claim 18, and its dependent claims, is patentable over the Siegel et al. reference. Applicants further note that independent claims 34 and 42 each contain recitations similar to those of independent claim 18. Consequently, the Siegel et al. reference also fails to anticipate claims 34 and 42. As a result, these claims, in addition dependent claims 35-37, are also allowable over the Siegel et al. reference.

For the numerous reasons provided above, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102 and allowance of claims 1-50.

Conclusion

In view of the remarks set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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